



ABERDEEN

COMPLETE NETWORK SOLUTIONS

USER'S MANUAL

ABERNAS 106

ABERNAS 110

ABERNAS 116

ABERNAS 221

ABERNAS 231

ABERNAS 232

ABERNAS 233

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- Intel, Pentium, and Xeon are registered trademarks of Intel Corporation.
- Microsoft, Windows, and Windows NT are registered trademarks of Microsoft Corporation.
- Adobe and Acrobat are registered trademarks of Adobe Systems Incorporated.
- Adaptec is a registered trademark of Adaptec Inc.

For previous or updated manuals, BIOS, drivers, or product release information, contact ABERDEEN at <http://www.Aberdeeninc.com> or through any of the means indicated on the following pages.

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INTRODUCTION

Aberdeen LLC, the Custom Server Solution Provider, has provided an excellent selection of quality custom computing solutions to the IT professional for more than a decade. As an innovator of storage solutions Aberdeen has become a one-stop solution source for the IT Professional.

The computer industry is a continuously evolving marketplace. With a clear vision of the future, Aberdeen has become a trend setter via its vast technical experience and industry foresight. Aberdeen is a pioneer in providing customizable rack mounted servers, backup solutions and scalable NAS storage appliances.

Aberdeen Rackmount Storage Server applicable models.

- Aberdeen AberNAS 106 - 1U NAS Appliance
- Aberdeen AberNAS 110 - 1U NAS Appliance
- Aberdeen AberNAS 231 - 2U NAS Appliance
- Aberdeen XDAS – Scalable Storage and NAS

As an industry leader, Aberdeen not only reduces cost of ownership by offering the longest warranty in the industry, but also has demonstrated better performance and has proven to provide a better ROI than the competition in head-to-head comparisons

ABERDEEN CONTACT INFORMATION

Aberdeen understands that service does not stop once a product ships. We sincerely hope there will never be a situation in which a problem arises; however, should there be a need for service, Aberdeen will be there to provide the prompt, courteous, and efficient service expected.

Headquarters

Address: 9130 Norwalk Blvd. Santa Fe Springs, California 90670
Telephone: 562-699-6998
Fax: 562-695-5570
Email: GenSales@aberdeeeninc.com
WWW: www.Aberdeeninc.com

Customer Support

Hours: Monday - Friday, 8am – 5pm PST
Telephone: 562-699-6998 ext. 152
Email: CustomerService@aberdeeeninc.com

Technical Support / RMA

Hours: Monday - Friday, 8am – 5pm PST
Telephone: 562-699-6998 ext. 326
Email: RMAtech@aberdeeeninc.com

5-YEAR WARRANTY TERMS AND CONDITIONS

Aberdeen provides an industry leading 5-Year Warranty on any of its fully configured rackmount servers. All Aberdeen fully configured rackmount solutions are warranted to be free of defects in materials for a period of five years from date of shipment or the lifetime of the product to be free of workmanship defects. A fully configured rackmount system is defined as a system, which in a single purchase includes the rackmount chassis, motherboard, processor(s) with appropriate cooling equipment, memory and hard disk drive(s) all assembled. This warranty does not cover any abuse, misuse or modification of products. We reserve the right to repair or replace the defective product under warranty as we see appropriate. We do not warrant uninterrupted or error-free operation of a product. We do not warrant that any product that you acquire will meet your individual requirements



**"Aberdeen's warranty is 'REAL' and their response is immediate!"
- Customer testimonial; Mr. Tawfik Daoud, Maximus Inc.**

MISSION STATEMENT

The Straight Talk People. - The primary business focus for Aberdeen is to be the IT professional's preeminent resource for complete network solutions, while remaining dedicated to building and maintaining excellent service and support relationships with its clientele.

COMPANY BACKGROUND



Founded in 1991, Aberdeen LLC is a leading direct marketer of rackmount servers, storage solutions, computers and computer hardware. Voted among The Direct 100 vendors by PC Computing magazine, Aberdeen designs, manufactures and customizes award-winning Aberdeen brand computer systems, Stirling rackmount servers, AberNAS storage appliances and backup storage servers. Aberdeen LLC provides assistance to its vast customer base in the planning, budgeting and implementation of complete network solutions including High-Performance Computing and NAS/SAN deployment within existing IT environments. For product sales, service or company information, contact Aberdeen at 800-552-6868, by fax at 562-695-5570 or visit www.aberdeeninc.com.

GOALS

To provide rack mounted server, data storage, and network solutions to the business, government, education and telecommunication sectors.

To continually offer a comprehensive selection of cutting-edge computer hardware components and be the single source for the most reliable and the best valued backend server networking solutions in the market.

To exceed its clients' expectations through dedicated one-on-one service, unequalled attention to detail, and custom solutions designed to overcome networking obstacles.

THE ABERDEEN ADVANTAGE

Aberdeen's consummate professional and highly experienced sales, management and technical teams are key elements in its ability to provide the finest complete network solutions and service available in the marketplace.

With unparalleled experience in the industry, Aberdeen has accumulated the expertise to design and custom configure any network ranging from a couple of workstations to a complete SAN/NAS network environment.

Aberdeen's ability to provide the best service and hardware availability is enhanced by its certifications and partnerships with the recognized leaders in the computer industry.

Company Certifications include:

- Microsoft Certified Partner
- Intel Premier Provider

Staff certifications and qualifications:

- Microsoft Certified Professional
- Microsoft Certified Systems Engineer
- Intel Certified Solution Consultant
- Intel Certified Integration Specialist
- Novell Unix and Linux Professionals



ABERDEEN LEADS INDUSTRY WITH 5-YEAR WARRANTY



Aberdeen is pleased to provide an industry leading 5-Year Warranty on any of its fully configured rackmount servers. Whether you select one of the pre-configured Stirling servers or custom design a complete server for yourself, it will be warranted to be free of defects in materials for a period of five years from the date of shipment and for the lifetime of the product to be free of workmanship defects.

CUSTOM SERVER SOLUTIONS PROVIDER

Aberdeen LLC has provided personal and corporate customers quality custom computing solutions for more than a decade. Customizable Stirling rack mounted servers, backup solutions and AberNAS storage appliances not only offer a longer warranty and demonstrate better performance, but have proven to provide a better ROI than the competition in head-to-head comparisons. Aberdeen offers a comprehensive product line for the Gaming Enthusiast to the IT Professional.

- Fully Customizable Rackmounts, Servers, Chassis and Systems
- Full Network Solutions and Rackmount Server Cabinet Models
- NAS/SAN Mass Storage Solutions Units and Appliances
- RAID protected Disaster Recovery and Backup Servers
- Governmental, Educational and Corporate Workstations
- Complete Server Solutions for Microsoft, Unix and Linux platforms
- Industrial PC Components; Data Acquisition, SBCs and Backplanes
- Hand Held & Modular Hard Drive Duplication
- Comprehensive line of PC Hardware

REFERENCES

Over the years Aberdeen LLC has been privileged to work with companies that share similar expectations and professional goals to its own such as unmatched customer service, personal and professional integrity, honest communication and the commitment to forming long-term partnerships.

The innovative Stirling "Backup Monster" storage server impressed Tawfik Daoud, senior system engineer of Maximus Inc. enough to praise Aberdeen in a recent letter. Mr. Daoud mentioned that he chose Aberdeen since the "Backup Monster" costs considerably less than the closest competitor and was "amazed" with the ease of implementation and performance. Mr. Daoud goes on to write in his testimonial.

"The "Backup Monster" is one step ahead in the backup industry and what I like most is that Aberdeen is backing it up."

The Stirling S21 Server appealed to David Featherstone, a network administrator for Timber Products, a company of 1,500 employees, who told PC Magazine how happy he is with the Stirling brand server and that he plans to purchase more in the future.

"Over the years, I've tried everything," Mr. Featherstone says. "I have built my own servers, or bought them from major vendors, but I really like these. The value you get for your money is impressive."

Satisfied clients are the best reference for Aberdeen. Below includes a sample of some of the world-class companies whose rack mounted server expectations have been exceeded by Aberdeen to the point that they have become frequent repeat customers.

Adventists	Intel	Ohio State University	University of Michigan
Boeing	Lockheed	Paramount Pictures	University of Washington
Computer Sciences Corp	Microsoft	Penn State University	US Army
Cornell University	Motorola	Raytheon	US Navy
Central Intelligence Agency	Northrup Grumann	Stanford University	Vanderbilt University
Dow Chemical	Novartis Pharmaceuticals	Timber Products	Verizon
IBM	Oak Ridge National Lab	UC Lawrence Berkeley Lab	Virgin Entertainment

REVIEWS AND AWARDS

Throughout the years Aberdeen LLC has received praise and critical acclaim for custom built servers and desktop systems. Take a look at these recent comments about Aberdeen Stirling Servers from - **PC Magazine**.

"The Stirling S17 Merits an Honorable Mention" - **PC Magazine 2003**

"The least expensive Intel-based server in our roundup, the Aberdeen Stirling S17 offers a lot of power and scalability for the money." - **PC Magazine 2003**

"We were impressed with the Stirling S17's performance; it generally led the pack in test results" - **PC Magazine 2003**

"Astonishingly Low Price. Inexpensive, Hardworking Server the Aberdeen Stirling S21 is a good choice." - **PC Magazine 2002**

"With an Unrivaled five-year warranty ... (the Stirling S21) offers comparable components and performance (to IBM)." - **PC Magazine 2002**



PREVIOUS COMMENTS FROM THE EXPERTS

"The Claymore D90G is the fastest PC we've seen so far." - **Maximum PC 2001**

"There's No Mystery Here- This One's a Beast ... Aberdeen's Loch Ness machine is a tower of power." – Loch Ness D80G - **Maximum PC 2001**

"Aberdeen shows us what a real gaming system should be all about with its latest computer." – Loch Ness D45G - **PC Gamer Editors' Choice 1999**

APPENDIX - A

ABERNAS 106

ABERDEEN ABERNAS 106 SPEC SHEET

Maximize:



640GB Hot-Swap Storage Capacity



ABERNAS 106

MAXIMIZE:

- Network Storage Capacity
- Hardware Redundancy and Reliability
- Network Performance
- Management Simplicity
- Scalability
- Cost / GB Ratio
- Peace of Mind with a 5-Year Warranty

Inevitably you will need to replace or increase the capacity of your network storage, application server storage or back-up storage. The AberNAS by Aberdeen allows you to enjoy the benefits of a feature-rich, high-performance network attached storage without the high cost of ownership. The AberNAS by Aberdeen is the solution of choice to provide the power and features to support today's most dynamic and demanding network infrastructures. Packed with server management, security and mission-critical features the AberNAS by Aberdeen provides the best priced entry NAS appliance with the AberNAS 106.

As the ultimate reliable NAS server, the AberNAS 106 stresses value, speed, ease of management and dependable storage.. Configured with four ultra fast SATA drives, the cost efficient AberNAS 106 can provide the best valued small business NAS storage appliance solution. Yielding the best storage capacity, the a 1U AberNAS 106 storage appliance allows for a RAID 0, 1, or 5 storage environment thus offering flexibility and speed without sacrificing on security.

ABERNAS 106



For the system/storage administrator, managing an organization's growing wealth of information has become an increasingly complex, high pressure undertaking.



Microsoft® Storage Server 2003.

The system administrator must take into account rapidly changing storage technologies. While there are many storage solutions available today, not all solutions scale well with organizational growth, nor are all equally capable of delivering cost-effective high performance solutions.

The new and enhanced data and storage management capabilities of Microsoft® Windows Server 2003 and Microsoft Windows Storage Server 2003 are critical tools in helping system and storage administrators do more with less.

SPECIFICATIONS	
MODEL	AberNAS 106
FORM FACTOR	1U, 19" Rackmount
BASE CAPACITY	640 Gigabytes
PROTOCOL SUPPORT	CIFS, NFS, NCP, HTTP and FTP
MAX RAID 0 CAPACITY	640 Gigabytes
MAX RAID 1 CAPACITY	320 Gigabytes
MAX RAID 5 CAPACITY	480 Gigabytes
MAX SINGLE ARRAY SIZE	640 Gigabytes
OPERATING SYSTEM	Windows® Storage Server 2003
PROCESSOR	Intel Pentium 4 2.4GHz at 533MHz Front Side Bus 512K Cache
MEMORY	512MB ECC Reg. DDR SDRAM
RAID ENVIRONMENT	Integrated Marvell 4 port RAID controller
HOT SWAP	4 Bays
INCLUDED OS / DATA DRIVES	4 x 160GB SATA 8MB Cache - 8GB OS Partition per Drive - 152GB DATA Partition per Drive
ETHERNET	Dual Intel Gigabit controller 2 x 10/100/1000 ports
ETHERNET LOAD BALANCING	Load Balancing, Teaming and Failover
POWER SUPPLY	350w
RAILS	Included
WARRANTY	5-Year Limited

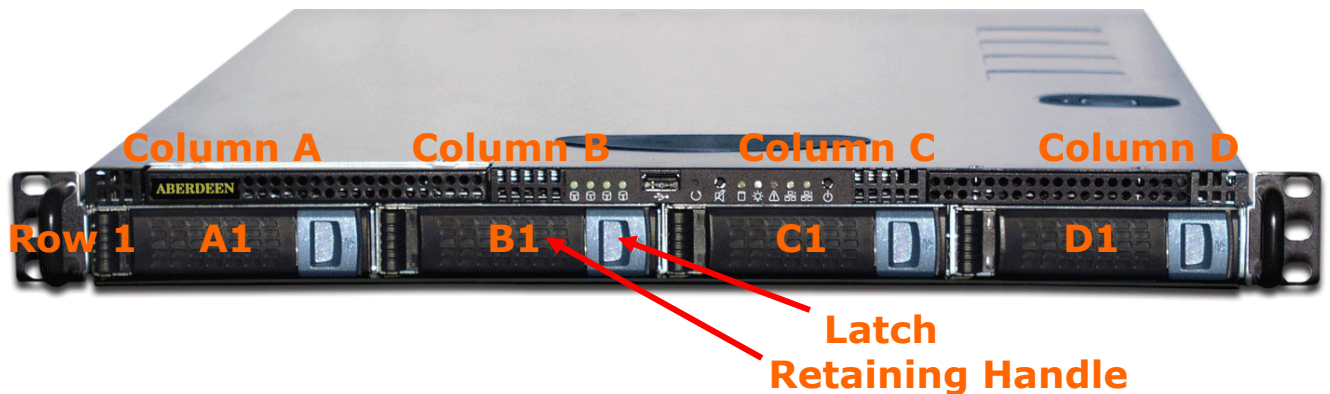
ABERNAS 106 DISK PLACEMENT CHART

WARNING – The disk drive trays must be properly seated completely back into their sockets and they must be in their proper positions in order to avoid software corruption and/or hardware damage.

Please carefully read the following:

Your AberNAS by Aberdeen storage appliance has one row of four hard disk drives. The columns are labeled alphabetically from left to right. For safety during shipment to you, the drives have been removed and shipped separately.

The positioning stickers on the hard drive packages correspond to their placement in the chassis. Proper placement of the drives is critical in retaining the integrity of any software or operating system that has been loaded.



Slide the hard drive into place with the retaining handle extended. When the drive is fully inserted, push the retaining handle back until it is fully seated and snapped into the latch.

Should you require technical assistance with this or any other aspect of your Aberdeen server, contact us toll free at (800)552-6868 option 2 from 8:00am to 5:00pm PST.

APPENDIX - B

ABERNAS 110/116

ABERDEEN ABERNAS 110/116 SPEC SHEET

Maximize:



1TB Hot-Swap Storage Capacity



MAXIMIZE:

- Network Storage Capacity
- Hardware Redundancy and Reliability
- Network Performance
- Management Simplicity
- Scalability
- Cost / GB Ratio
- Peace of Mind with a 5-Year Warranty



ABERNAS 110
ABERNAS 116

Inevitably you will need to replace or increase the capacity of your network storage, application server storage or back-up storage. The AberNAS by Aberdeen allows you to enjoy the benefits of a feature-rich, high-performance network attached storage without the high cost of ownership. The AberNAS by Aberdeen is the solution of choice to provide the power and features to support today's most dynamic and demanding network infrastructures. Packed with server management, security and mission-critical features the AberNAS by Aberdeen can offer up to 1TB (terabyte) in a 1U space with the most competitive value in the marketplace.

As the ultimate reliable NAS server, the AberNAS 110 stresses speed, ease of management and dependable storage.. Configured with four ultra fast 250GB SATA drives, the AberNAS 110 can provide a RAID 0, 1, or 5 storage environment. Yielding the best storage capacity, the a 1U AberNAS 110 storage appliance offers flexibility and speed without sacrificing on security.

ABERNAS 110 ABERNAS 116



For the system/storage administrator, managing an organization's growing wealth of information has become an increasingly complex, high pressure undertaking.



Microsoft® Storage Server 2003.

The system administrator must take into account rapidly changing storage technologies. While there are many storage solutions available today, not all solutions scale well with organizational growth, nor are all equally capable of delivering cost-effective high performance solutions.

The new and enhanced data and storage management capabilities of Microsoft® Windows Server 2003 and Microsoft Windows Storage Server 2003 are critical tools in helping system and storage administrators do more with less.

SPECIFICATIONS	
MODEL	AberNAS 110/116
FORM FACTOR	1U, 19" Rackmount
BASE CAPACITY	1.0 Terabyte / 1.6 Terabyte
PROTOCOL SUPPORT	CIFS, NFS, NCP, HTTP and FTP
MAX RAID 0 CAPACITY	1.0 Terabyte / 1.6 Terabyte
MAX RAID 1 CAPACITY	1/2 Terabyte / 800 Gigabyte
MAX RAID 5 CAPACITY	2/3 Terabyte / 1.0 Terabyte
MAX SINGLE ARRAY SIZE	1.0 Terabyte / 1.6 Terabyte
OPERATING SYSTEM	Windows® Storage Server 2003
PROCESSOR	Intel Pentium 4 2.8GHz at 800MHz Front Side Bus 512K Cache
MEMORY	512MB ECC Reg. DDR SDRAM
RAID ENVIRONMENT	Integrated Marvell 4 port RAID controller
HOT SWAP	4 Bays
INCLUDED OS / DATA DRIVES	4 x 250GB / 400GB SATA 8MB Cache - 8GB OS Partition per Drive - 242GB / 392GB Partition per Drive
ETHERNET	Dual Intel Gigabit controller 2 x 10/100/1000 ports
ETHERNET LOAD BALANCING	Load Balancing, Teaming and Failover
POWER SUPPLY	350w
RAILS	Included
WARRANTY	5-Year Limited

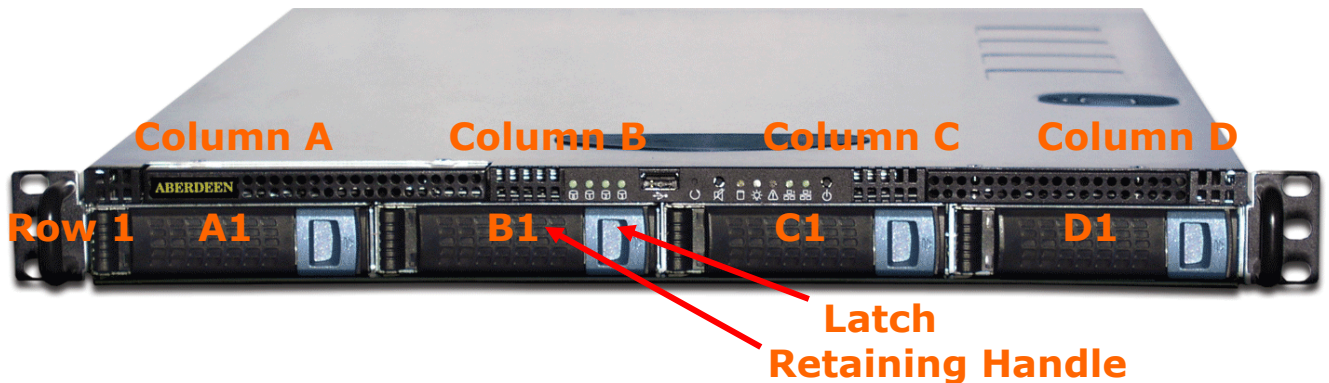
ABERNAS 110/116 DISK PLACEMENT CHART

WARNING – The disk drive trays must be properly seated completely back into their sockets and they must be in their proper positions in order to avoid software corruption and/or hardware damage.

Please carefully read the following:

Your AberNAS by Aberdeen storage appliance has one row of four hard disk drives. The columns are labeled alphabetically from left to right. For safety during shipment to you, the drives have been removed and shipped separately.

The positioning stickers on the hard drive packages correspond to their placement in the chassis. Proper placement of the drives is critical in retaining the integrity of any software or operating system that has been loaded.



Slide the hard drive into place with the retaining handle extended. When the drive is fully inserted, push the retaining handle back until it is fully seated and snapped into the latch.

Should you require technical assistance with this or any other aspect of your Aberdeen server, contact us toll free at (800)552-6868 option 2 from 8:00am to 5:00pm PST.

APPENDIX - C

ABERNAS 221

ABERDEEN ABERNAS 221 SPEC SHEET



ABERNAS 221

MAXIMIZE:

- Network Storage Capacity
- Hardware Redundancy and Reliability
- Network Performance
- Management Simplicity
- Scalability
- Cost / GB Ratio
- Peace of Mind with a 5-Year Warranty

Inevitably you will need to replace or increase the capacity of your network storage, application server storage or back-up storage. The AberNAS by Aberdeen allows you to enjoy the benefits of a feature-rich, high-performance network attached storage without the high cost of ownership. The AberNAS by Aberdeen is the solution of choice to provide the power and features to support today's most dynamic and demanding network infrastructures. Packed with server management, security and mission-critical features the AberNAS by Aberdeen can offer up to 2 terabytes in a 2U space with the most competitive value in the marketplace.

As the ultimate reliable NAS server, the AberNAS 221 stresses speed, ease of management and dependable storage.. Configured with separate mirrored OS drives to provide system failover, the AberNAS 221 provides a RAID 5 hot spare storage environment. Yielding the best storage capacity the a 2U AberNAS 221 storage appliance offers flexibility and speed without sacrificing on security.

ABERNAS 221



For the system/storage administrator, managing an organization's growing wealth of information has become an increasingly complex, high pressure undertaking.



Microsoft® Storage Server 2003.

The system administrator must take into account rapidly changing storage technologies. While there are many storage solutions available today, not all solutions scale well with organizational growth, nor are all equally capable of delivering cost-effective high performance solutions.

The new and enhanced data and storage management capabilities of Microsoft® Windows Server 2003 and Microsoft Windows Storage Server 2003 are critical tools in helping system and storage administrators do more with less.

SPECIFICATIONS	
MODEL	AberNAS 221
FORM FACTOR	2U, 19" Rackmount
BASE CAPACITY	2.0 Terabytes
PROTOCOL SUPPORT	CIFS, NFS, NCP, HTTP and FTP
MAX RAID 0 CAPACITY	2.00 Terabytes*
MAX RAID 1 CAPACITY	1.00 Terabyte*
MAX RAID 5 CAPACITY	1.75 Terabytes*
MAX SINGLE ARRAY SIZE	2.0 Terabytes
OPERATING SYSTEM	Windows® Storage Server 2003
PROCESSOR	Dual Intel Xeon 2.4GHz at 533MHz Front Side Bus 512K Cache
MEMORY	2GB ECC Reg. DDR SDRAM
RAID ENVIRONMENT	12-Port RAID Controller
HOT SWAP	12 Bays
INCLUDED MIRRORED OS/DATA DRIVES	2 x 80GB SATA 8MB Cache - 10GB OS Partition - 70GB DATA Partition
INCLUDED DATA DISK DRIVES	8 x 250GB SATA 8MB Cache
ETHERNET	Dual Intel Gigabit controller 2 x 10/100/1000 ports
ETHERNET LOAD BALANCING	Load Balancing, Teaming and Failover
POWER SUPPLY	460w Dual Hot Swap REDUNDANT
RAILS	Included
WARRANTY	5-Year Limited
* Includes a 140 GB Base RAID 1 Partition	

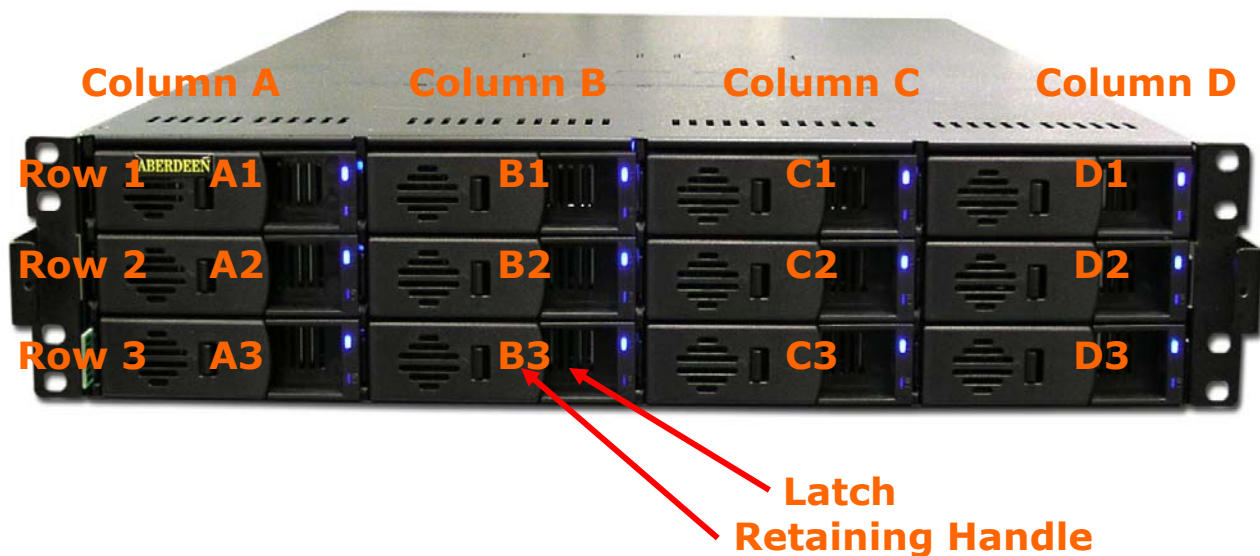
ABERNAS 221 DISK PLACEMENT CHART

WARNING – The disk drive trays must be properly seated completely back into their sockets and they must be in their proper positions in order to avoid software corruption and/or hardware damage.

Please carefully read the following:

Your AberNAS by Aberdeen storage appliance has four columns of three hard disk drives. The columns are labeled alphabetically from left to right and the rows are numbered from top to bottom. For safety during shipment to you, the drives have been removed and shipped separately.

The positioning stickers on the hard drive packages correspond to their placement in the chassis. Proper placement of the drives is critical in retaining the integrity of any software or operating system that has been loaded.



Slide the hard drive into place with the retaining handle extended. When the drive is fully inserted, push the retaining handle back until it is fully seated and snapped into the latch.

Should you require technical assistance with this or any other aspect of your Aberdeen server, contact us toll free at (800)552-6868 option 2 from 8:00am to 5:00pm PST.

APPENDIX - D

ABERNAS 231/232/233

ABERDEEN ABERNAS 231/232/233 SPEC SHEET

Maximize:



3TB Hot-Swap Storage Capacity



ABERNAS 231

ABERNAS 232

ABERNAS 233

MAXIMIZE:

- Network Storage Capacity
- Hardware Redundancy and Reliability
- Network Performance
- Management Simplicity
- Scalability
- Cost / GB Ratio
- Peace of Mind with a 5-Year Warranty

Inevitably you will need to replace or increase the capacity of your network storage, application server storage or back-up storage. The AberNAS by Aberdeen allows you to enjoy the benefits of a feature-rich, high-performance network attached storage without the high cost of ownership. The AberNAS by Aberdeen is the solution of choice to provide the power and features to support today's most dynamic and demanding network infrastructures. Packed with server management, security and mission-critical features the AberNAS by Aberdeen can offer up to 3 terabytes in a 2U space with the most competitive value in the marketplace.

As the ultimate reliable NAS server, the AberNAS 231 stresses speed, ease of management and dependable storage.. Configured with separate mirrored OS drives to provide system failover, the AberNAS 231 provides a RAID 5 hot spare storage environment. Yielding the best storage capacity the a 2U AberNAS 231 storage appliance offers flexibility and speed without sacrificing on security.

The AberNAS 232 is configured just as the 231 model yet is provides even more TB capacity with the use of 400GB drives.

ABERNAS 231 **ABERNAS 232** **ABERNAS 233**

For the system/storage administrator, managing an organization's growing wealth of information has become an increasingly complex, high pressure undertaking.



Microsoft® Storage Server 2003.

The system administrator must take into account rapidly changing storage technologies. While there are many storage solutions available today, not all solutions scale well with organizational growth, nor are all equally capable of delivering cost-effective high performance solutions.

The new and enhanced data and storage management capabilities of Microsoft® Windows Server 2003 and Microsoft Windows Storage Server 2003 are critical tools in helping system and storage administrators do more with less.



SPECIFICATIONS	
MODEL	AberNAS 231/232/233
FORM FACTOR	2U, 19" Rackmount
BASE CAPACITY	3.0 Terabytes 4.8 Terabytes 6 Terabytes
PROTOCOL SUPPORT	CIFS, NFS, NCP, HTTP and FTP
MAX RAID 0 CAPACITY	2.74 Terabytes 4.39 Terabytes 5 Terabytes*
MAX RAID 1 CAPACITY	1.49 Terabytes 2.39 Terabytes 3.48 Terabytes *
MAX RAID 5 CAPACITY	2.24 Terabytes 3.59 Terabytes 4.5 Terabytes *
MAX SINGLE ARRAY SIZE	2.0 Terabytes 3.2 Terabytes 5 Terabytes
OPERATING SYSTEM	Windows® Storage Server 2003
PROCESSOR	Dual Intel Xeon 2.4GHz at 533MHz Front Side Bus 512K Cache
MEMORY	2GB ECC Reg. DDR SDRAM
RAID ENVIRONMENT	12-port SATA II RAID Controller
HOT SWAP	12 Bays
INCLUDED MIRRORED OS/DATA DRIVES	2 x 250GB / 400GB SATA 8MB Cache - 10GB OS Partition - 240GB / 390GB DATA Partition
INCLUDED DATA DISK DRIVES	10 x 250GB 400GB 500GB (SATA II) 8MB Cache
ETHERNET	Dual Intel Gigabit controller 2 x 10/100/1000 ports
ETHERNET LOAD BALANCING	Load Balancing, Teaming and Failover
POWER SUPPLY	460w Dual Hot Swap REDUNDANT
RAILS	Included
WARRANTY	5-Year Limited
* Includes a 240 GB Base RAID 1 Partition w/ 250GB drives and 390 GB Base RAID 1 Partition w/ 400GB drives and 980 GB Base RAID 1 Partition w/ 500GB drives	

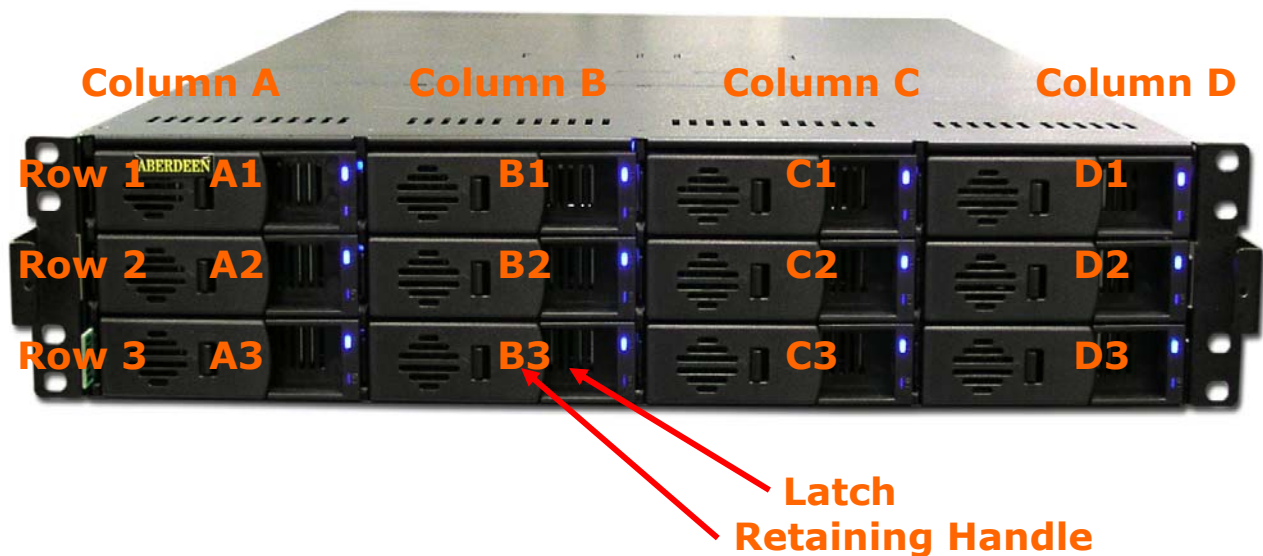
ABERNAS 231/232/233 DISK PLACEMENT CHART

WARNING – The disk drive trays must be properly seated completely back into their sockets and they must be in their proper positions in order to avoid software corruption and/or hardware damage.

Please carefully read the following:

Your AberNAS by Aberdeen storage appliance has four columns of three hard disk drives. The columns are labeled alphabetically from left to right and the rows are numbered from top to bottom. For safety during shipment to you, the drives have been removed and shipped separately.

The positioning stickers on the hard drive packages correspond to their placement in the chassis. Proper placement of the drives is critical in retaining the integrity of any software or operating system that has been loaded.



Slide the hard drive into place with the retaining handle extended. When the drive is fully inserted, push the retaining handle back until it is fully seated and snapped into the latch.

Should you require technical assistance with this or any other aspect of your Aberdeen server, contact us toll free at (800)552-6868 option 2 from 8:00am to 5:00pm PST.

APPENDIX - E

INITIAL SETUP INSTRUCTIONS

ABERDEEN NAS SERVER EASY SETUP

Initial Set up

- **If you connect a monitor (1024x768x85Hz resolution), a keyboard and a mouse to your Aberdeen NAS Server for easy setup purposes:**
 - o Power up the device and Login as:
 - User: Administrator
 - Password: monster
 - o The easy Graphical User Interface (GUI) NAS interface will start. Click on “Administer this Server Appliance” and a detailed help menu embedded into interface will appear. If you see a connection error on Internet Explorer, simply click “Try Again.”
- **If you don’t want to connect your Aberdeen NAS Server to a monitor, keyboard and a mouse:**
 - o Just connect the server to your network, turn it on and allow it approximately two (2) minutes to boot up. Go to any computer connected to the same network, open up your web browser and type <https://abernas:8098>
 - o Enter the default login information:
 - User: Administrator
 - Password: monster
 - o The easy Graphical User Interface (GUI) NAS interface will start. Click on “Administer this Server Appliance” and a detailed help menu embedded into interface will appear. If you see a connection error on Internet Explorer, simply click “Try Again.”
- **If your network has a special IP Number Range or a Layer 2-3 switch and there is no DHCP Server present on your network, second method may not function and it will be necessary to install a monitor, keyboard and mouse on the NAS Server.**

CHANGING THE RAID ARRAY SETUP

How to Access Web Based RAID Management Utility.

A) If you have 12/16/24 drive bay NAS

- 1) Connect a separate cable from your network to “RAID Array Management Port”. That port will not transmit file data. It will be only for the RAID array management

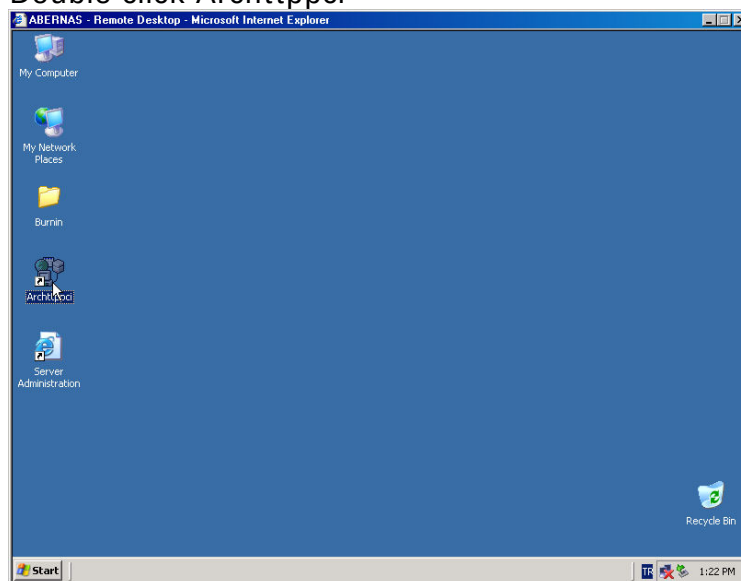


- 2) The port is set to 192.168.1.100 and 255.255.255.0 by default. You can access the RAID Management from any remote computer on your network by typing the IP number on a web browser. Default username is Admin and password is “0000” (4 zeros).

If you have DHCP setup and your network IP number doesn't match, above method may not work. You need to set it manually or get the automatically assigned IP number.

- i) One way is to connect Keyboard-Monitor-Mouse and boot into NAS.

1. Double click Archttppci



2. Click and highlight the controller than click start.
3. Default username is Admin and password is "0000" (4 zeros).
4. Change the network setting under System Controls
5. Ethernet config.

- ⊕ Quick Function
- ⊕ RaidSet Functions
- ⊕ VolumeSet Functions
- ⊕ Physical Drives
- System Controls
 - [System Config](#)
 - [EtherNet Config](#)
 - [Alert By Mail Config](#)
 - [SNMP Configuration](#)
 - [View Events/Mute Beeper](#)
 - [Generate Test Event](#)
 - [Clear Event Buffer](#)
 - [Modify Password](#)
 - [Upgrade Firmware](#)
- ⊕ Information



Areca Technology Corporation

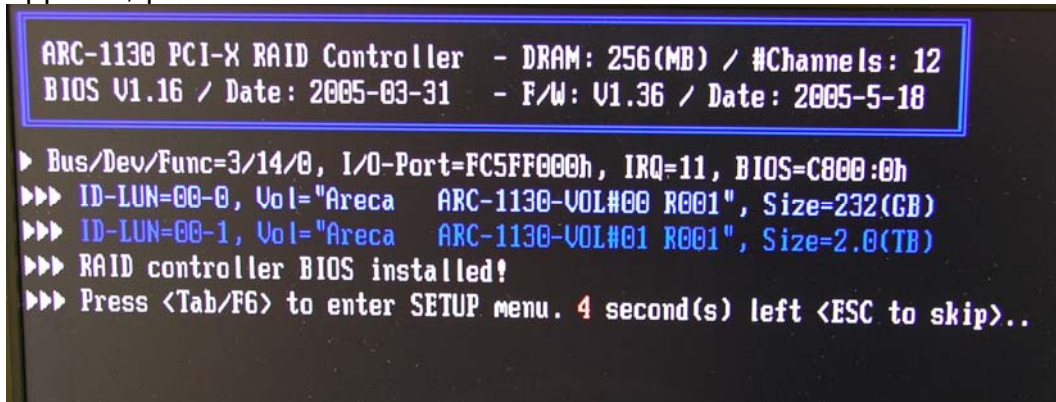
Raid Set Hierarchy

Raid Set	IDE Channels	Volume Set(Ch/Id/Lun)	Volume State
Raid Set # 00	Ch01	ARC-1130-VOL#00 (0/0/0)	Normal
	Ch02		
Raid Set # 01	Ch03	ARC-1130-VOL#01 (0/0/1)	Normal
	Ch04		
	Ch05		
	Ch06		
	Ch07		
	Ch08		
	Ch09		

6. You can access the RAID Management from any remote computer on your network by typing the IP number on a web browser.

ii) Second way is to set it up from the boot menu

1. Restart your computer. While system is booting, when Areca BIOS Menu appears, press TAB.

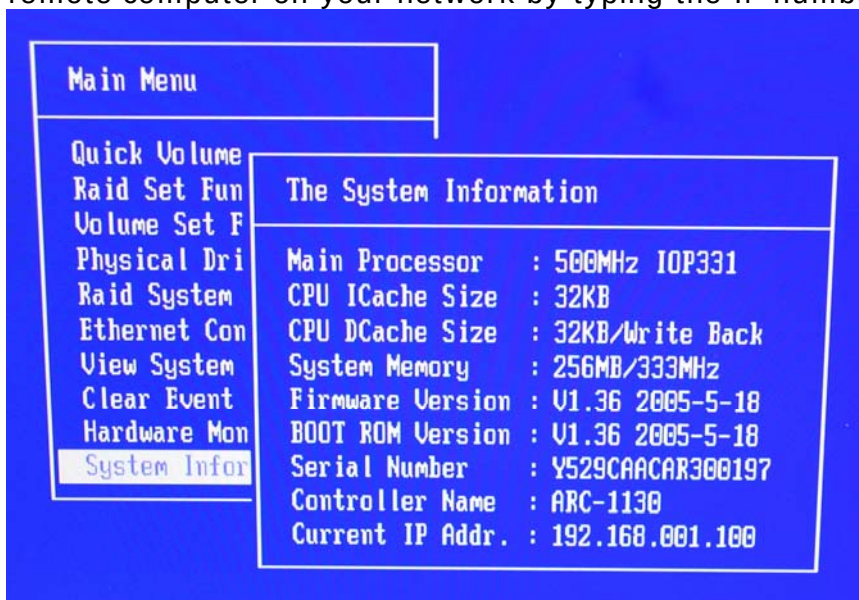


Wh

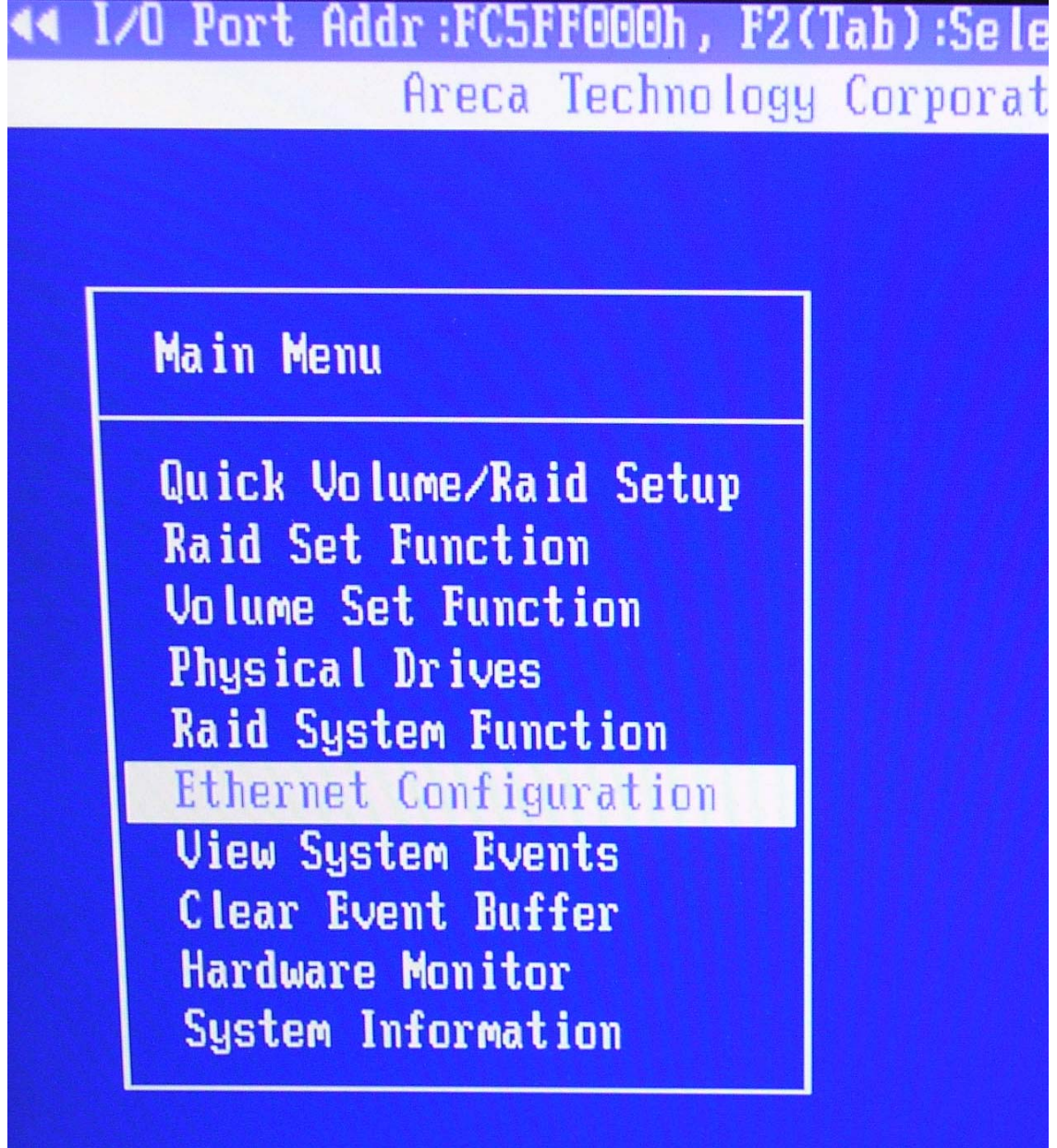
en controller address appears press enter.



2. Default password is "0000" (4 zeros).
3. If you have a DHCP setup on your network, you can read it from System Information Menu and you can access RAID Management from any remote computer on your network by typing the IP number.



4. If you don't have a DHCP setup or you need to set a static IP (recommended), Open up the Ethernet Configuration menu.

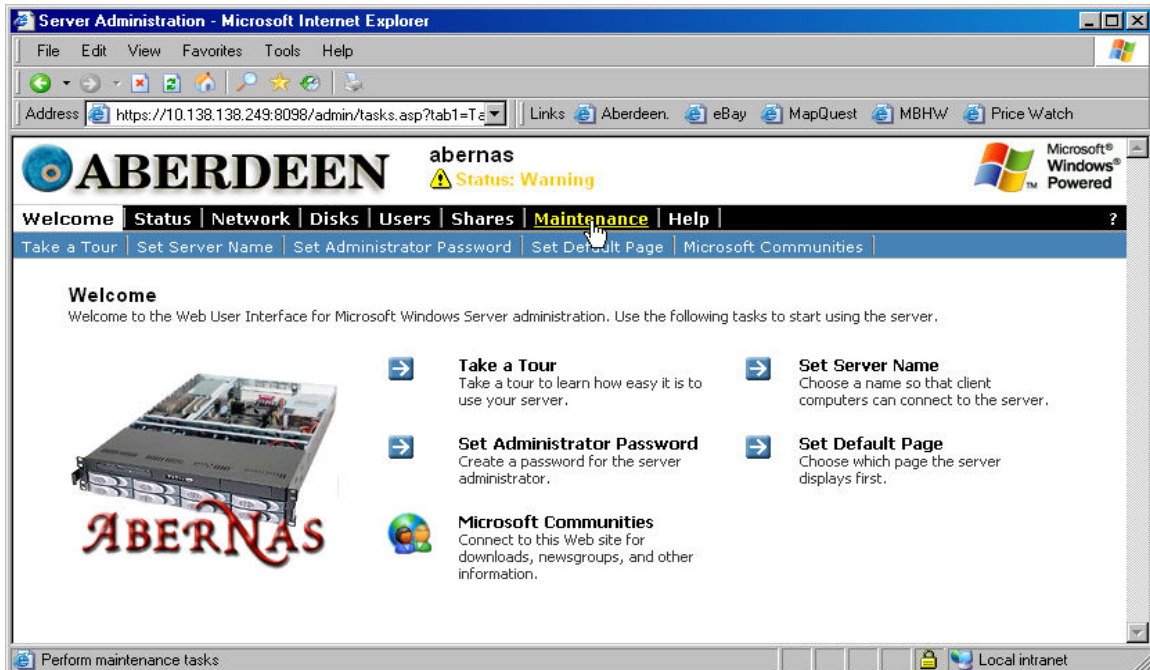


Disable DHCP and set the IP number and Subnet for the Array Management. Press F10 to save and exit. you can access RAID Management from any remote computer on your network by typing the IP number. Default username is Admin and password is "0000" (4 zeros).

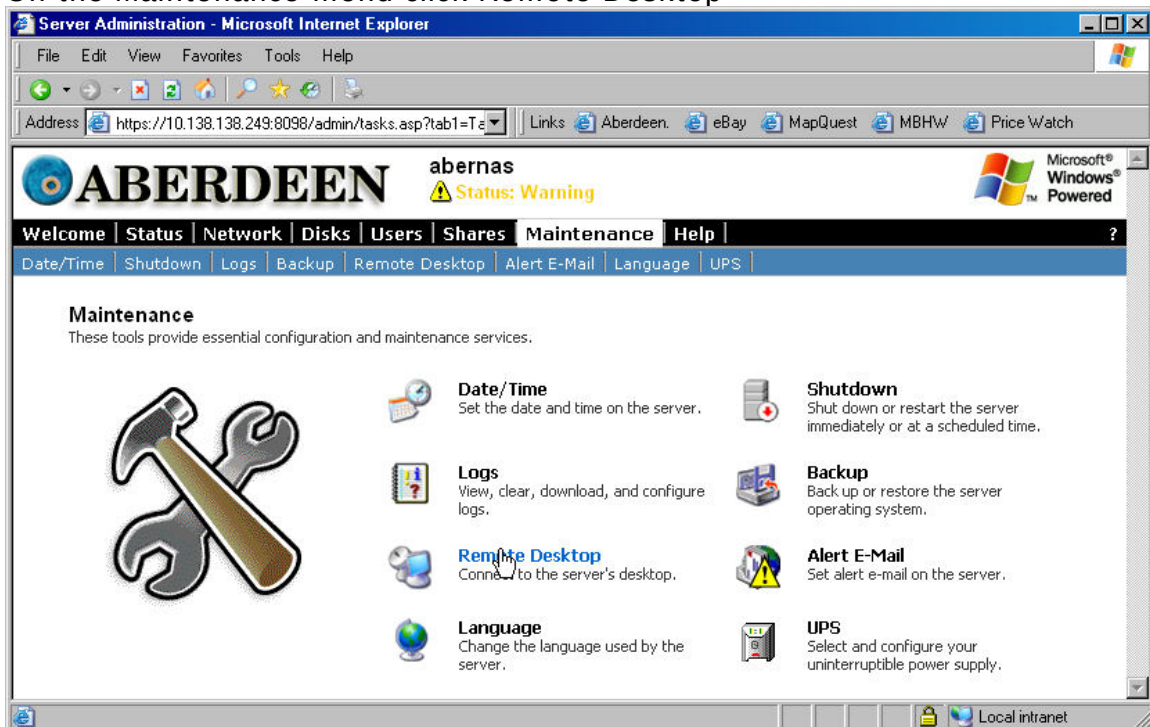
B) If you have 4/8 drive bay NAS

If you can connect the Keyboard-Monitor-Mouse to your server , Steps 7 and 8 will let you start remote access. Ignore the other steps

- 1) Open up the NAS Main menu on your Internet browser
- 2) On the NAS Main menu click Maintenance.



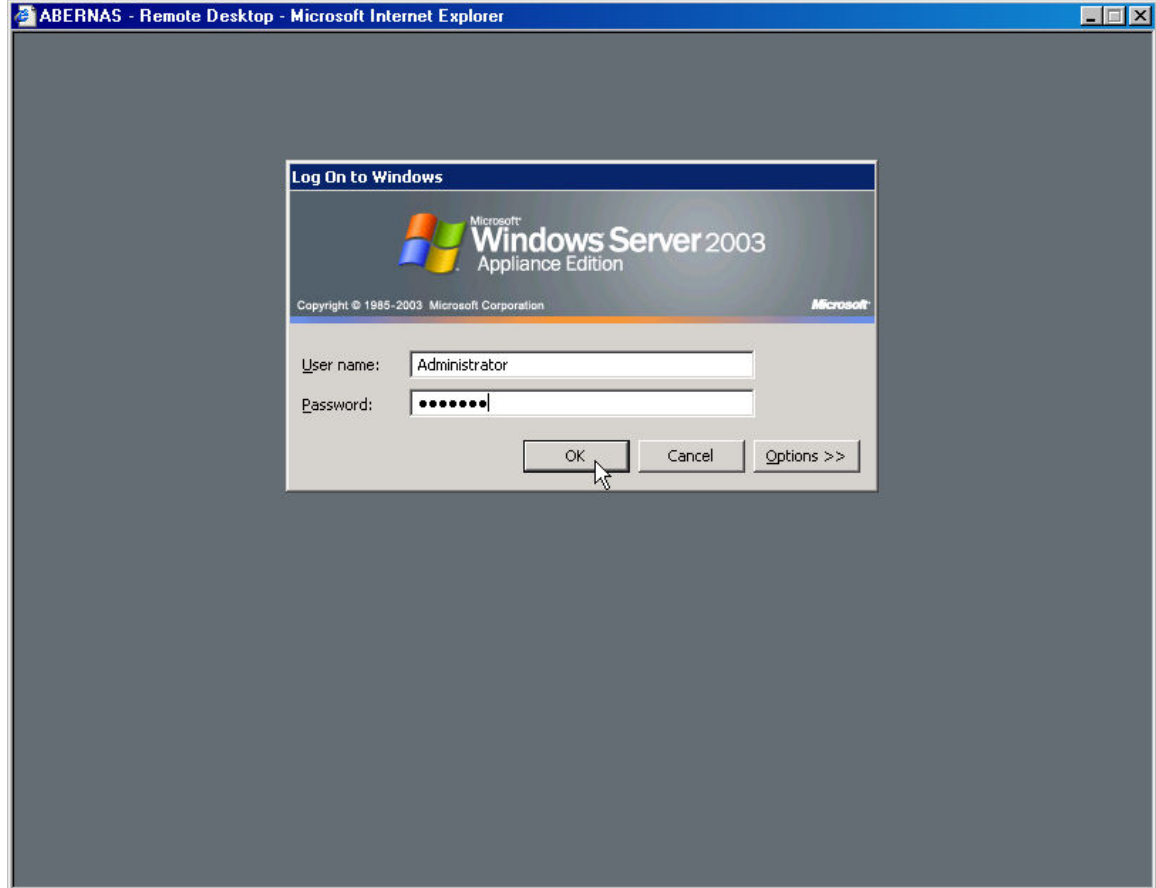
- 3) On the Maintenance menu click Remote Desktop



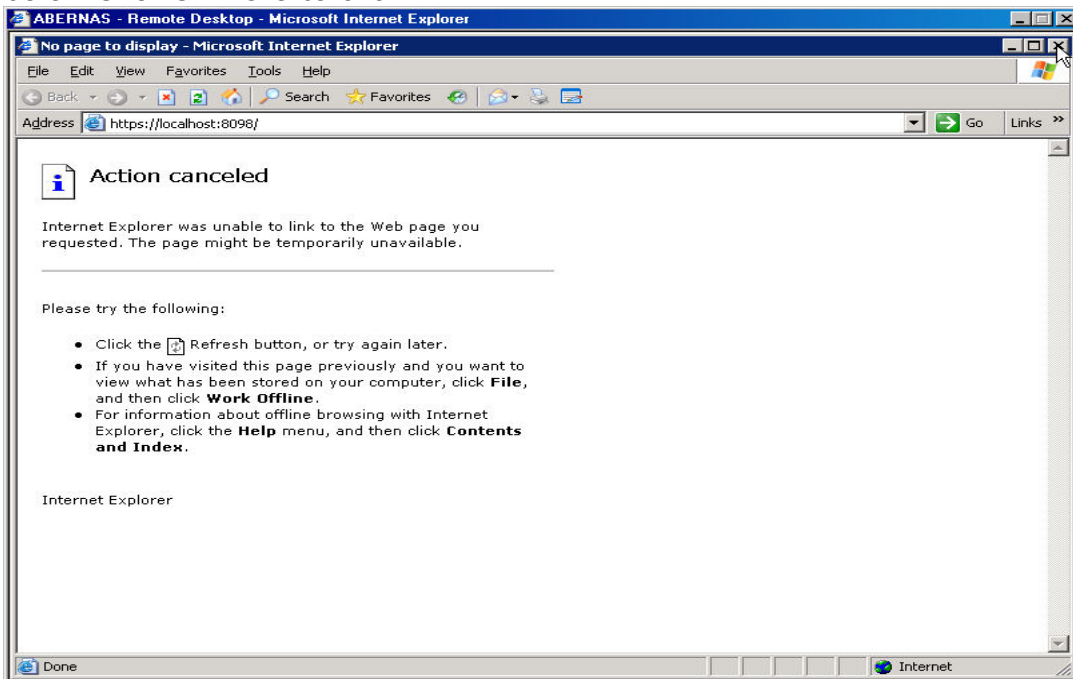
- 4) If it is the first time you are logging in to Remote Desktop, it will ask you to install an ActiveX control. Click Yes.



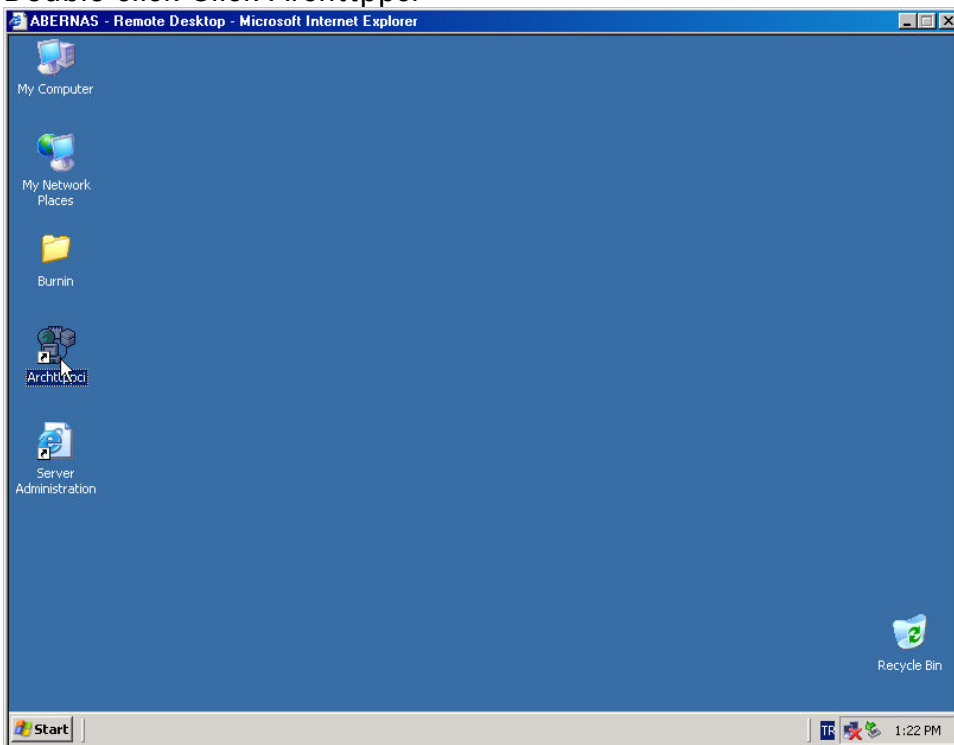
- 5) The Remote Desktop Login menu will come up. Enter your username and password. If you did not change this, it will be the default username and password of the NAS Main menu.



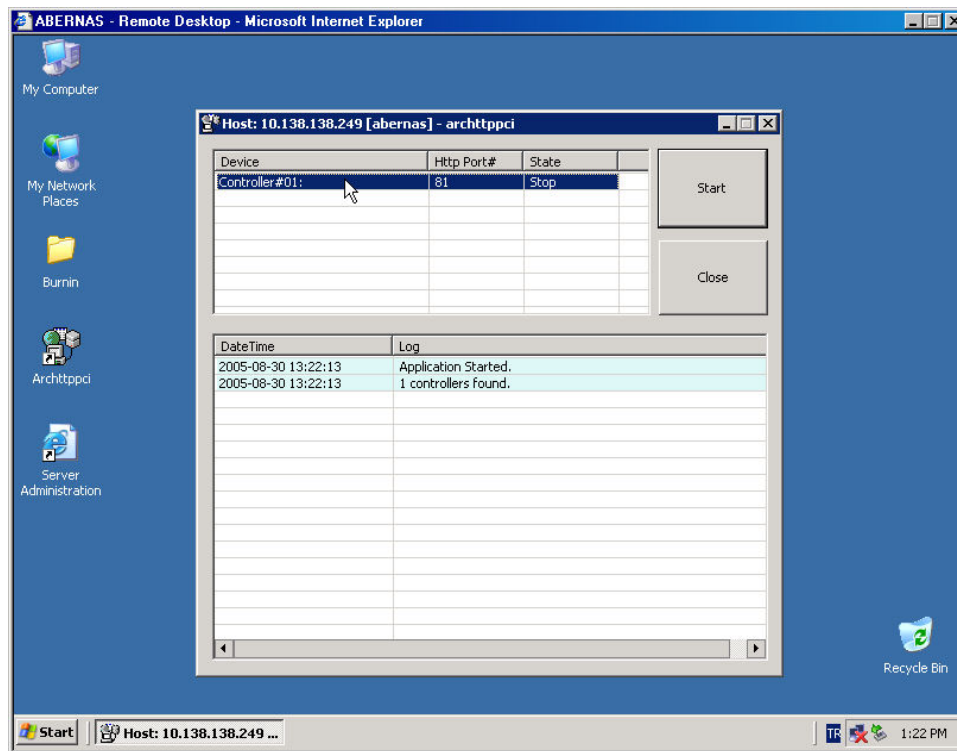
- 6) A windows session will come up with the NAS Main menu and will start within that session. Just close the Internet Explorer **WITHIN THAT SESSION.** (Not the one you opened up to access Remote Desktop.) The pointer on the photo below shows where to click



- 7) Double click Click Archttppci



- 8) Click and highlight the controller than click start. From that point on, you can access the RAID Management from any remote computer on your network. until you restart NAS Server. To Reach from Remote, simply enter `http://xxx:81` which xxx being you NAS Server's IP number or name
Default username is Admin and password is "0000" (4 zeros) for the controller



- 9) Logoff to close Remote Desktop. Remote Desktop let's you open 2 Remote sessions at a time. So If you don't logoff, that session will remain open. After 2 times of not logging off ,it will not let you in. If that happens, you may restart your AberNAS to clear those open sessions

APPENDIX - F

MICROSOFT WINDOWS STORAGE SERVER 2003

NOTE: For additional Windows Storage Server 2003 information see the accompanying .pdf file included within this CD.

APPENDIX - G

WEB BASED RAID MANAGEMENT UTILITY

NOTE: For additional Web Based RAID Management Utility information see the accompanying .pdf file included within this CD.